

Notice of Allowability

Application No.

10/618,876

Examiner

Cicely Ware

Applicant(s)

MIAO, GEORGE J.

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/16/2005.
2. ☒ The allowed claim(s) is/are 1-9, 24-37 renumbered as 1-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>1</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with George J. Miao on 2/6/2006:

Claims:

- a. Claim 1, line 4, delete "lowpass-shaping filter", insert "lowpass-shaping finite impulse response filter"
- b. Claim 1, line 10, delete "; and", insert ", said digital lowpass shaping filter system coupled to said digital to analog converter;"
- c. Claim 1, line 8, delete "image", insert "in-phase"
- d. Claim 1, line 14, delete "image", insert "in-phase"
- e. Claim 7, line 8, delete "MUX", insert "multiplexing (MUX)"
- f. Claim 24, line 5, delete "that connected to a mixing", insert "that is connected to a mixer"
- g. Claim 24, line 6, delete "mixing", insert "mixer"
- h. Claim 24, line 21, delete "mixing", insert "mixer"
- i. Claim 24, line 22, delete "MUX", insert "MUX (multiplexer)"
- j. Claim 27, line 4, delete "mixing", insert "mixer"

k. Rewrite Claim 28 as follows:

A dual-mode ultra wideband and wireless local area network
communication receiver comprising:
an analog-to-digital converter to provide information to a digital receiver
filter system;
a pre-switch to provide information to a rake receiver or to an in-
phase/quadrature demodulation;
the digital receiver filter system to provide information to the pre-switch;
the rake receiver coupled to a de-spreading of pseudorandom noise
sequence and de-mapping;
the in-phase/quadrature demodulation coupled to a fast Fourier transform
mapping unit;
a post-switch to provide information to a block de-interleaver; and
the de-spreading of pseudorandom noise sequence and de-mapping or
the fast Fourier transform mapping unit to provide information to the post-switch.

- l. Claim 32, line 5, delete "the", insert "a"
- m. Claim 32, line 6, delete first instance "the", insert "a"
- n. Claim 32, line 6, delete second instance "the", insert "an"
- o. Claim 32, line 7, delete "the", insert "a"
- p. Claim 32, line 9, delete "the", insert "a"
- q. Claim 32, line 11, delete "the", insert "a"
- r. Claim 32, line 12, delete "image", insert "in-phase"

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s. Claim 32, line 13, delete "during the transmitter", insert "during either the ultra wideband transmitter mode or during the wireless local area network transmitter mode"

t. Claim 32, line 14, delete "the", insert "a"

u. Claim 32, line 16, delete "during the transmitter", insert "during either the ultra wideband transmitter mode or during the wireless local area network transmitter mode"

v. Claim 32, line 17, delete "the", insert "a"

w. Claim 32, line 19, delete "during the transmitter", insert "during either the ultra wideband transmitter mode or during the wireless local area network transmitter mode"

x. Claim 32, line 24, delete "the", insert "an"

y. Claim 32, line 25, delete "the", insert "an"

z. Claim 32, line 26, delete "the", insert "an"

aa. Claim 33, line 2, delete "a", insert "the"

bb. Claim 33, line 4, delete "the", insert "a"

cc. Claim 33, line 6, delete "the", insert "a"

dd. Claim 34, line 4, delete "the"

ee. Claim 34, line 5, "the", insert "a"

ff. Claim 35, line 4, delete "the"

gg. Claim 36, line 4, delete "the"

hh. Claim 37, line 2, delete "a", insert "the"

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- ii. Claim 37, line 5, delete first instance "the", insert "a"
- jj. Claim 37, line 5, delete second instance "the", insert "a"
- kk. Claim 37, line 9, delete "image", insert "in-phase"


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a dual-mode ultra wideband and wireless local area network transceiver. Prior art references show similar methods but fail to teach: **"a switch to connect from the UWB multi-channel PN sequence mapping or the WLAN FFT and I/Q modulation to the digital lowpass-shaping filter system"**, as in claim 1; **"a wireless local area network lower-band selectable multicarrier frequencies coupled to a lower-band wireless local area network commuter unit in which contains a lower-band switch; a wireless local area network upper-band selectable multicarrier frequencies coupled to a upper-band wireless local area network commuter unit in which contains a upper-band switch"**, as in claim 24; **"a pre-switch to provide information to a rake receiver or to an image/quadrature demodulation, a post-switch to provide information of a block de-interleaver"**, as in claim 28; **"selectively set the digital lowpass-shaping transmitter filter for the ultra wideband or for the wireless local area network during the transmitter"**, as in claim 32,

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
January 27, 2006


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER